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SOCIETY OF ARTS.

FRIDAY, MAY 6th, 1853.

NINETEENTH ORDINARY MEETING,

Wednesday, May 4th, 1853.

THE Nineteenth Ordinary Meeting of the Society was held on Wednesday, the 4th instant, the Right Hon. the Earl of Harrowby in the chair.

The following Institutions have been taken into Union since the last meeting:

264. Epsom and Ewell, Literary and Scientific Institution.
265. Salford, Athenæum and Temperance Hall.

The Discussion was resumed on the Very Rev. the Dean of Hereford's paper, "On the Importance of giving a Self-supporting Character, as far as possible, to Schools for the Labouring Classes; and the Means of doing so."

HENRY COLE, ESQ., C. B., observed that the discussion had terminated the previous week with a question from Mr. Hinton as to the propriety of compulsory attendance at schools. That inquiry seemed to him to open a question beside the precise point of the discussion, which referred only to the self-supporting plan of education. He was not sure whether it might not be desirable, under some circumstances, to have a certain amount of compulsory attendance at schools, inasmuch as we had already such a thing as compulsory attendance in prisons; and it might possibly be desirable to use compulsion in education, to prevent that stage of the matter. In regard to the question of self-support, however, he thought every one would admit that Education, like everything else, must be paid for somehow; it might be paid for by the Government wholly, or by money obtained by means of the begging box, or supported on its own merits, as most things wholesome and worthy were. He would not express any opinion on this point, further than to say, that experience showed that whenever capital was found by one person, and managed by another, the thing did not work so well as it might do. In all cases where a business was managed by corporations, whether arising out of a central government, or out of parishes, or elected by shareholders, and indeed, wherever there was corporate authority, there appeared to be little feeling of responsibility, and things went wrong; as some one had said, corporations had no souls, and certainly they seemed to pay no penalty for their misdeeds. This had been strikingly exemplified a few years ago in the case of railway directors, in regard to the choice of whom the utmost freedom of election had been exercised, but that had not prevented them from doing wrong. In all these matters there was nothing like individual responsibility. Wherever Government attempted to do the whole business of education, and pay for it all, an element arose which was most prejudicial to success. Then there was the eleemosynary part of the consideration. In regard to that, he thought persons never properly valued a thing which was cheaper than dirt; they were always suspicious of it. True, a great deal had been done for education through the eleemosynary principle, and that was perhaps better than nothing. Educational charities were, he thought, relics of the past. In the old times, when people had left off fighting they began to accumulate money; and not being able to take it out of the world with them, they left it behind for some charity. Whatever had been their antecedents, however, the consequences were, he thought, unwholesome, and he did not think it wise to speak of them too charitably, or allow their origin to exempt them from being condemned. It had been his business, during the last year, to be connected with the Government schools of design, supported upon the principle of Government paying part, and begging for the remainder. An examination of the progress of these institutions showed that the results were not successful. It was found that in proportion as the Government was disposed to contribute, committees were disposed to inaction; that where the Government paid much, the localities did little. Last year the Board of Trade endeavoured to introduce a more wholesome state of things, and it was determined that no further schools should be founded on the principle of the Government subsidizing them. At that time two schools were about to be founded, which afforded a very fair experiment. One was in Limerick and the other in Waterford; both were cities in the county of Limerick, and both were agricultural towns, but Limerick contained about treble the population of Waterford. To the former 150*l.* per annum had been promised, to Waterford nothing. Now the result of the experiment at the end of one year was as follows: the number of students in each was about the same, but in Limerick the students cost, per individual per annum, 32*s.*, and paid per annum 25*s.*; whilst in Waterford they cost 15*s.* per individual, and paid 25*s.* Thus Waterford, a poor Irish town, was self-supporting, more so than any other in the country; whilst in Limerick, a richer town, with a larger population, the result of their subsidizing was to make them paupers and keep them so. Limerick was constantly begging for more, whilst Waterford, having nothing to gain by begging, depended on its own resources. In consequence of the success of Waterford, education in art had been extended to other places on the same principle of not giving any subsidy, but guaranteeing an income to the master. In Chester a school had been established which, from the first, had been self-supporting, and the guarantee to the master of 70*l.* a year would not be needed, as the income from students' fees would amount to 200*l.* In Hereford, also a school had been established on the same principle, and there they had had the able assistance of the Very Rev. Dean. In raising the capital for the first outlay, the Dean and Chapter gave them a donation, the first ecclesiastical authority in the country who had done so. The first outlay for fittings, examples, &c., amounting to 40*l.*, having been raised, he was told that the master would net 160*l.* the first year out of students' fees. The Dean wrote word to say that the instruction there given was popular amongst all classes, and there was no doubt that the institution would be in every way self-supporting; whereas had the Board of Trade offered them 200*l.* a year, and made the instruction *gratis*, it would have been a complete failure. This he regarded as a very happy experiment in favour of the self-supporting principle, inasmuch as the population did not exceed 13,000, and was purely agricultural. It was somewhat curious to mark the experiments. In the great manufacturing towns, where a profit was derived from the application of art, where they had already had large grants, they were constantly craving for more. From one town in the north, the Board of Trade had applications three times in one year to increase its grant of 600*l.* per annum. A few days ago he had an application from one town which had already a grant of 150*l.* a year, requesting him to ask the Board of

Trade to increase their grant to 400*l.* or 500*l.* a year, simply because of the importance of its manufactures, urging that as a reason why their workmen should be educated in art without paying for it. He told them in answer, that he thought it would have a more wholesome effect to take away their grant altogether. He had recently visited Manchester, and was told that they would never get 5*l.* a year out of the people there, for the support of a school of design. He referred them to the example of Chester, and did not hold out any hope of a grant from the Board of Trade. The result was there were now upwards of twelve schools organising themselves in Manchester, for teaching drawing. There was another most important point referred to by the Dean, namely, the propriety of making the schools attractive to those who were to get the benefit out of them; and in regard to this part of the question, he was reminded that schools for one class only were cut off from a fruitful source of income. There were several schools in London that were just able to pay their way—they were not quite self-supporting at present. In reference to this part of the question, he would here remark, that he looked forward to a time when education would be regarded as a commercial question, and when whatever was invested in a school would return five per cent; in the meantime, it would be necessary to pay the cost of founding them. The schools called Birkbeck schools admitted mixed classes; he was not sure, however, whether they made each class pay according to its means, but thought they charged one uniform price. Now a uniform price to meet the abilities of the poor, would, he thought, be fixed at a far lower average than it ought to be; and the advantage was lost which might result from making the different classes pay according to their means, besides the mischief of too low rates. When he entered on his present office, amongst other branches of their Institution, they had a school for females, in Gower-street. It was miserably placed as regarded finances, costing some 600*l.* or 700*l.* a year, and realizing only about 50*l.* The thing appeared to him degrading; ladies were receiving instruction worth 10*s.* or 1*l.* 1*s.* a lesson, for which they were paying at the rate of 1¼*d.* for a lesson of three hours. The rooms were nicely carpeted, and so comfortable, that they would have been cheap to sit in at that price. They had the best models, the best examples of antiquity, and the best designs of modern art. They had materials found them; and in the season, they had peaches, pine-apples, &c., to paint from; and yet, after all this, the ladies did not think themselves treated well, because Government did not pension them; as for having any notion that they were under any obligation, it had not entered their minds, although not a few of them came in their broughams. The first thing he did was to increase the fees; and the result was, that from 70 pupils, realizing 55*l.* a year, in less than nine months they had 190 pupils, realizing 300*l.* a year. They were much more diligent pupils, and much more eager to come to the school. There was another class in the school for wood-engraving; they met twice a week, and paid 2*s.* per month. The pupils in this class he entreated not to regard it in this *dilettante* fashion, but to come every day, at the same time increasing the fee to 10*s.* per month. This experiment was also successful, and the number of pupils had increased one-third. The Rev. Dean had referred to the question of the propriety of the Society of Arts taking up the subject of education. It seemed to him that the Society afforded an excellent opportunity of trying this self-paying system. They would be able to try to instigate the giving of a good education free from those unhappy differences about pins' points; for as regarded art education, there could arise no question of creed or denomination—all classes were willing to receive it and to pay for it. He had received, for instance, in one week, expressions of a desire for art education from a bishop of the Established Church, from a master of a training school, from Cardinal Wiseman, and from the Jewish Rabbi. It appeared to him, that the Society could have no better mission than to try to find out those points of education which all classes were anxious to have, and to bring them before the public in such a manner as might best secure their promotion.

Dr. LATHAM remarked, that to discuss the general question of the self-supporting character of educational establishments like those indicated by the Rev. Dean, would be a mere waste of breath, for their self-supporting character might fairly be assumed. He would make a few observations, therefore, on the question proposed last week by Mr. Hinton as to the propriety of compulsory attendance, and also to the question briefly touched by the Dean regarding the time when, in agricultural populations, the children were inclined to leave school. There was a striking connection between those two questions. In regard to the school which the Dean had described, no questions could be raised—it was a *fait accompli;* but still the consideration arose as to the possibility of applying the same system to other parishes, agricultural and manufacturing. But the great difficulty to himself was that just suggested. It was easy to say that 2*d.*, or 3*d.*, or 4*d.* a week could be paid by the working man for education; but the question which he laid stress upon was, How could the labouring man pay 3*s.* 6*d.* or from that to 6*s.* a week for the education of his children? Now, it was a fact, that in agricultural districts boys of from six to eight years of age could earn, by weeding, 6*d.* a day—so that, in fact, to send them to school was paying 3*s.* a week each instead of 3*d.*; and it was mere verbiage to talk of 2*d.*, or 3*d.*, or 4*d.*, or 6*d.* being the price of their education, when it also involved the forfeit of their possible earnings. And, moreover, he believed that the whole tendency of agricultural improvements was to give increased value to juvenile labour. He confessed he knew but few alternatives in this difficulty; one was suggested in the question proposed by Mr. Hinton—namely, the compulsory attendance at school of the juvenile population. He should like to know, also, how far the Dean considered the mixing up of the two classes—the children of the employers and the employed—would have the effect of tempting the sons of the latter to school. This, he apprehended, might probably have as beneficial an influence as Government compulsion. It was rather his object to call attention to the difficulties than to pass any opinion; and he would take leave of the subject by again indicating the connection between Government compulsion and the inducement offered by the mixing of the lower with the higher classes of children.

Mr. ALEXANDER CAMPBELL remarked that the question was one not second in importance to any other, inasmuch as on the good education of the people depended the wealth, industry, morals, and permanent prosperity of the nation; it was therefore the vital question of the age. If he was right in his appreciation of the subject, he would endeavour to show that if it were properly taken up, first by the Government, then by the people, and then by those who wished to be educated, education might be self-supporting. But he would lay it down as a political and social axiom, that if there were one duty more paramount than another, it was that Government ought to apply the national resources to the education or well-development of the people. They were told crime was increasing; that Government was bound to protect the people, both externally and internally—externally, by armies, navies, &c.; but if they forgot the education of the people, it would be little consequence how well they were guarded against external foes. He thought it a true theory, that every encouragement should be given to voluntary education, and that Government should be impressed with the necessity of applying national resources to it. Capital was required to commence, and who so proper as Government to supply it? If the people were compelled to support an army and navy, surely it was as necessary to support an army of schoolmasters; they were the true guardians of the people. Then in regard to the principle of self-support. He was a member of the first Mechanics' Institute in the world; it was established in Glasgow by Dr. Anderson, and he knew that to this day the mechanics of Glasgow would pay to the full extent required for necessary expenditure. There were other branches of education more required than mere artistic education; industrial education was required, if they wished to have superior mechanics and artizans. Something had been said of the impossibility of the agricultural labourer supporting education, and the last speaker had referred to the loss of 6*d*. a day being involved in the children's attendance at school. That was true: almost every working man required what his family could earn in order to gain the necessaries of life; but still, taking children on an average from five to fifteen years of age, they were competent not only to pay for their own education, but for their own maintenance as well. He had seen it done; he had seen them digging and weeding their gardens and raising food, paying for their education, and making their own clothes. He felt satisfied that if this Society would take up the question of education, and promote inquiry on the subject, education would not only be better attended to, but capital would be found; and if properly applied, the results would benefit not only the person who found such capital, but the nation at large. He had that day been reading a report from the state of New York on the subject of education, and from it he learned that the state contributes not less than a million sterling annually for educating the people. There a certain portion of land was laid aside for the purposes of education in connection with the formation of every township. As an investment for capital, however, if the thing were properly gone into, he believed it would pay better than any railway in the kingdom.

Mr. **William Ellis**, of Camberwell, who was introduced by Dr. Booth, as a gentleman practically engaged in the work of education, and indefatigable in his efforts on its behalf, remarked, that it was unquestionable that the greatest part of the education of this country was at the present time self-supporting in its character; and with all its short-comings, he thought no one would wish to see it conducted differently. What had the Dean proved? He had shown them a great fact; he had gone into an agricultural parish, where difficulties abounded, and by his zeal and activity had established a school, and had left it supporting itself, so far as current expenses were concerned. His efforts had been imitated in other places, and the gentleman who succeeded him in the parish had been converted to his views. Then, if that had been done in one parish, and followed by two or three more, why not in others? Was there anything peculiar in the parish or the county, or anything favourable in the circumstances? Or was not the peculiarity in the Rev. Dean—his mind overflowing with intelligence, and his heart with benevolence? Was it not that he practically lent himself to the work, countenancing, by his example and by years of effort, the bringing together of the various classes to receive a superior education? Almost everything in the country was done on self-supporting principles; but the great merit of the Dean's system was, that he had enabled the lower classes to partake of the superior education thus established on self-supporting principles. He wondered whether any part of this success was owing to the superiority of the education given, which enabled some of the parents not only to give the few pence a week for education, but also to forego the sixpence a day for bird-frightening or weed-gathering? He hoped he was not trenching on dangerous ground, when he asked how it was that the Dean had so few fellow-labourers? He thought there must be many contemporaries educated where he was, who must be in the world doing something. Was it owing to what the Dean brought from college, that he had achieved so much, or was it owing to what he had thrown off? Much of the neglect of education had arisen out of the utterly useless character which belonged to tuition at many schools; instead of teaching how to go on in the world, and training to follow in the right direction, it had been too often mere acquirement of rote-knowledge in utterly useless subjects. Persons who talked of State-education forgot how much that implied. That education, in point of fact, embraced the questions of how to feed, house, and clothe a family; and that if the State undertook the education of the people, it might undertake the feeding, lodging, and clothing of them, as well as instructing and training them. In regard to compulsory education, if it were necessary to answer that question, he should say, that if he saw a child in a gutter, and knew no way to save it from perdition but education, he would compel it to be educated. But that was a question quite unnecessary at present; there was a world of work to be done first. They had got, as Dr. Chalmers had observed, to invade ignorance, and overcome it. There was another consideration closely allied with the school education of children; he meant the home influences they were subjected to. He remembered one work issued by the Dean, which had made a great impression on his mind; it was that in which he referred to a cottage of one room being the dwelling of a family, so that it was impossible to preserve the common decencies of life. The State could not rectify these things; it was the work of the people themselves assisted by those energetic, able, especially-appointed and qualified men, who were to assist their generation in emerging from a lower to a higher state of civilization. He would read an extract from a paper going over similar ground, but more succinctly:

"Is it desirable that the children of these realms, on leaving the schools at which they have been placed by their parents, shall have obtained thus much of instruction, as to find themselves acquainted with the general principles on which the industrial efforts of all must be conducted; and with an outline of the arrangements which have been adopted, and under which they are about to engage? It is desirable; but it is yet to be desired. Moreover, it is attainable; but such is the barbarous state of the prevailing education that it is still far from being attained."

After a few remarks on the division of labour, the writer proceeded:—

"The unfolding of all this knowledge, and of the principles and practices of industrial employment, to the young in our schools will enable them clearly to see how fatal the mistake must ever be to all interested, especially to the labourers, if they should endeavour to set themselves up as dictators to their masters in respect of methods and contrivances, and distribution of time and service in the conduct of business. Should the young workman feel in himself the germs of a superiority over those whom he serves, he may use his efforts to persuade, and to recommend improvement, and he may shift from an incompetent to a less incompetent employer; and ultimately, he may avail himself of the opportunity of applying his own superior arrangements on his own account, and with his own capital, careful at each step to fulfil every engagement with fidelity, and to bear in mind throughout that the labour of the workman, when sold for wages, is the sole property of the capitalist who has bought it.

"Marvellous, indeed, will be the improvement of our social state, when the young shall leave our schools imbued with all the feelings that cannot fail to accompany the kind of knowledge which, we so earnestly contend, ought not to be withheld from them. A few schools have proved that this knowledge may be easily communicated; and what can be done in a few schools, can be done in others, if those who hold the reins there are competent to guide in the right direction. Who, then, are the real holders of the reins? We will close our present paper with an attempt to answer that question.

"The power of deciding in which among all existing schools the young shall be instructed, is invested in their parents. The power of seeking and of creating a demand for something better than what existing schools afford, is also invested in parents. The power of enlightening ignorant parents, of confirming the hesitating, and of awakening the inert among them to a keener sense of duty, is invested in that large body of accepted teachers,—the clergy of all denominations; and that other small body of self-appointed teachers, who, being in advance of the age, struggle to make their proffered instruction acceptable to as many parents as possible. The government of a country, so far as they are considered in the character of creators, and not of creatures of public opinion, may also be enumerated among those who act upon parents, or supply the place of parents.

"We have already shown how far the Committee of Council on Education have proved themselves equal to the task of improving and extending the attainments of schoolmasters, so as to render them more efficient in obtaining for those who come under their instruction a fair prospect of participation in the blessings of our advanced civilization, and of security against the imminent danger to which all are exposed who do not know how to conform to the rules of industrial discipline. Are the clergy, as a body, more competent to discharge their duty in these respects than the Committee of Council? Or are they so distressingly behind the Council as to torment its members, who really are anxious for improvement, with their stubborn opposition to all innovation, and with their callous insensibility to the higher calls of duty? Have we any hopes of amendment in the next generation of clergymen, from the style of education which they are now receiving at *the seats of learning?* Or are the principals and professors in these seats of learning intent upon confirming the people of this country in the belief of what they are already beginning to suspect—that they are destined to advance in civilization, not only without University assistance, but in spite of University resistance?"

He would not add another word to diminish the effect of what he had read; but, as the Rev. Dean had remarked, a little practice was worth a great deal of talking. If the Society would take the matter up, and try to carry it out as expressed in the letter which it had recently issued, he could promise to procure them a large amount of pecuniary support, and give a little of his own time and labour into the bargain.

EDWARD BAINES, Esq., remarked that, so far as he could learn, there was a general opinion prevailing that the principle brought forward by the Very Rev. Dean was the true system of education, both as best sustaining the self-reliance of the people, and as actually best calculated to produce the end desired. Mr. Cole, with many of whose remarks he entirely agreed, threw out a doubt as to the original providing of the capital. The opinion of Lord Brougham, in his Report on Education, was, that if schools could be provided, there would be no difficulty in supporting them afterwards. But what he (Mr. Baines) wished to prove to demonstration was, that the people would supply the original capital, as well as maintain the schools. The first fact was one in which Mr. Campbell would feel interest. He was present himself in London at the first meeting of the London Mechanics' Institute, in 1824. They had now in his own county, Yorkshire, 120 Mechanics' Institutions, comprising nearly 20,000 members, all provided by the people themselves. There were, in the United Kingdom, about 700 Mechanics' Institutes, with not less certainly than 110,000 members. These, he thought, were strong assurances that the people would provide both original capital and subsequent maintenance. The question of education had lately been discussed in Manchester. The Rev. Charles Richson, the author of the local plan of education in Manchester and Salford, gave this evidence before a Committee of the House of Commons: he said there was no want whatever in the people of power to build schools to any extent required in Manchester. He also proved the very gratifying fact that there are now in Manchester and Salford no less than 172 public schools, and that of these, 110 schools, containing accommodation for 43,146 children, had been built between the years 1834 and 1852. In these 172 schools there was accommodation for 73,000 scholars, more than three times as many as were to be found in all the schools. He offered these facts to Mr. Cole to show how the people were providing capital for commencing, as well as means for carrying on schools. Of these 172, only 19 received building grants from Government, the total amount of which was about 8,300*l*. Nor was it in Manchester alone, but throughout the whole country, similar facts would be seen. A statement had been recently made by Lord John Russell on the state of education in this country in March, 1851. There were, he said, in the day-schools of the country upwards of 2,108,000 scholars, being 1 scholar to 8½ inhabitants; but through the deficiencies of those returns, the proportion was not stated quite accurately, the truth being that there was 1 to every 8⅓ inhabitants. Sir J. Kaye Shuttleworth had stated, that it was the opinion of the most eminent statistical authorities that 1 in 8 was what might be reasonably expected as a fair proportion. The state of education so far back as they had any returns was very different. The Report of Lord Brougham's Committee in 1818 gave the number of scholars in day-schools as 674,000, or 1 scholar in 17 inhabitants. Lord Kerry's Committee of the House of Commons in 1833 reported that there were 1,276,000 children attending in day-schools, or 1 scholar in 11⅓ inhabitants. The Registrar-General now reported that the number was 2,108,000, or 1 in 8½ inhabitants, though he (Mr. Baines) believed it to be 2,150,000, or 1 in 8⅓ inhabitants. The increase of population from 1818 to 1851 was at the rate of 57 per cent., whilst the increase of day-scholars was at the rate of 212 per cent. All this was independent of what had been done in Sunday-school education, which originated in 1782. They would find, he believed, that the total number of Sunday-scholars amounted to about 2,500,000, taught by 300,000 voluntary teachers, the proportion of scholars being about 1 in every 6 of the classes who send their children to Sunday-schools. He thought this would show Mr. Cole that the people had found capital. They were perfectly aware that Lord John Russell had said that, fifty years ago, there were no public schools for the poor except Sunday-schools. That was true in 1805, when Joseph Lancaster, together with the Duke of Bedford, began to multiply schools on their system; at that time there were no public unendowed schools, with the exception of two or three in the Borough-road. In 1818 the number was 861; in 1833 the number was 5,724; and that was before Government had advanced one penny towards building schools, or assisted in education in any degree. The number in 1851 was 11,367; so that the increase before Government aid was at the rate of 565 per cent; and after the Government Grants, only at the rate of 199 per cent.; the earlier increase being 44 per cent. per annum, and the latter increase only 11 per cent. per annum. He asked, was it possible to doubt the power of the people to provide their own institutions after such evidence? If the people were thrown on their own resources, they would rise and meet the case; not perhaps suddenly, any more than summer would immediately succeed winter. A spring time there would be, and it might appear cold and backward, but the movement was progressing, as surely as the spring would be succeeded by summer. The Dean had done great things, worthy of all honour; but others too had done likewise. The Rev. B. Parsons, of Ebley, near Stroud, had conducted a school somewhat similarly, to which one poor widow, earning seven shillings or eight shillings a week, had sent seven children, and kept each there on an average seven years. Another fact he would name—the people of this country spent 57,000,000*l.* in intoxicating liquors and tobacco, or at the rate of 4*l.* a head per annum; whilst 2*d.* a week for education would be only 8*s.*; 3*d.*—12*s.*; and 4*d.*—16*s.* per annum. The result of his observation—and he had long been a practical educator—was, that a self-supporting system was infinitely the surest and the noblest system; they did not need the aid of Government, which would only degrade them, and stereotype the character of education. All the Government improvements in education had sprung from private systems, and had been adopted by the Government inspectors.

Mr. Shiel, a teacher in one of the Birkbeck schools, after some remarks on the general subject, and the sad lack of education which still prevailed, remarked that voluntaryism had had a fair trial, and was manifestly unequal to the task. If it could educate the people and would not, was it not high time that it should be superseded? if it could not do so, then let it stand by and not object to other systems trying to effect what it had failed to do. He also referred to the inefficiency of the voluntary Normal schools, and their neglect of scientific training.

Mr. Harry Chester would confine his remarks to the question to which the Dean had alluded regarding the propriety of the Society of Arts discussing the subject of education. The charter of the Society stated that it was for promoting Arts, Manufactures, and Commerce, and he thought that no one would say education was inappropriate who remembered the year 1851, and how completely commerce was then shown to be dependent on education. In regard to the discussion, he thought it was certainly not the intention of the Society to have provoked controversy as to the general question of national education, and it might do mischief to the Society if they were to allow it to become the arena of political debate. The Dean of Hereford had made great triumphs in some specific points of grave importance. He had proved that a good education was, in the long run, cheaper and easier to maintain than a bad one; that in order to constitute a good education, it was necessary to impart the elements of science; he had brought it down in a way suited to the capacities and tastes of children in the lower walks of life, and proved that if a good education was put before the people, parents were willing to make great sacrifices that their children might obtain it. He had proved that the children of the labouring man might be educated in the same school as those of the middle classes, to the benefit of both. He had proved that the latter might obtain a better education than they had been in the habit of doing, without increased cost. In regard to the statistics of Mr. Baines, he would not enter into the argument further than to say that he entirely dissented from his conclusions, and that the example of Mechanics' Institutes was quite beside the case. Another point he wished to name was his regret that charges and imputations had been thrown out against the clergy and the Universities, and that, too, in the presence of the Dean, who was one of the brightest ornaments of both. He was convinced that no class in this country made greater efforts for the education of the people than the clergy of the Established Church.

The Rev. J. Howard Hinton said, in regard to his question as to compulsory education, he was content to let it stand where it was, without further remark. He agreed with Mr. Chester as to the impropriety of insinuations in discussions of this nature, and regretted that Mr. Shiel should have endeavoured to cast imputations on Voluntaryism and its Normal schools. He would conclude by asking Mr. Shiel whether it was not the fact that the Birkbeck schools were the result of the voluntary system?

The Chairman said, that though he did not quite agree with Mr. Baines, he rejoiced to think that his was the prevailing sentiment of the country. He did not like the idea of resigning education entirely into the hands of the Government. It was to be observed, however, that voluntary efforts had been greatest since the Government began to give aid; and he hoped for the best effects from the combination of the two powers, as it was important to remember that progress was best obtained by antagonism. Government aid might be required in some places, and not in others; as schools might be self-supporting in one place, and not in others. Where the means of self-support were not to be found, they ought not to refuse extraneous aid.

The Right Rev. the Bishop of Lichfield rose to propose a vote of thanks to the Chairman, which was carried by acclamation.

It was announced that at the next meeting, on May 11th, a paper would be read, by the Rev. W. Towler Kingsley, "On the Application of the Microscope to Photography."

⁂ Any Member wishing to possess a full account of the Very Reverend the Dean's paper, may have a copy on application to the Secretary.

RESIGNATION OF THE SECRETARY.

At the meeting of the Council on Wednesday last, the 4th instant, Professor Solly stated, that in consequence of the heavy correspondence which would devolve upon him in the formation of the collections proposed to be undertaken by the Society of Arts, in the Second Report of the Royal Commissioners for the Great Exhibition, it would not be possible for him to continue the Society's Secretary; he should, therefore, not propose to offer himself as Secretary at the next election, on the 6th of July.

NOTICE TO INSTITUTIONS.

The Commissioners of National Education of Ireland have determined, at the request of the Council, to present a complete set of their Annual Reports, seven in number, to each of the Institutions in Union.

The Board of Trade have also announced their intention to distribute, gratuitously, to the Institutions, a copy of the First Annual Report, for 1852, of the Department of Practical Art.

APPLIED SCIENCE AT OXFORD.

The following important series of questions have been recently printed and circulated by the Tutors' Association at Oxford. They are of peculiar interest at the present time, when the subject of collegiate instruction and University reform is exciting so much attention, and when the proposed erection of museums, lecture-rooms, laboratories, observatories, and workshops, on a large scale at Oxford, as a part of the educational machinery of the University, is under discussion:

UNIVERSITY.

1. The Government of the University, and the constitution of the Initiative Board ?

2. The advantages or disadvantages of the present comprehensive nature of a University education, that is, of an education based on Classics and Mathematics, with the addition of Divinity, Philosophy, History, Logic, &c., and requiring a combination from the student of all or several of these up to the final examination ? The modification of it proposed by the University Commission, viz., the appropriation of the last year of undergraduateship to special studies ? [see Report of Oxford University Commission, p. 72] The division of subjects proposed by the Commissioners at the final examination ? The propriety of any other division ?

3. The expediency of attaching honours to all the schools at the final examination, and to both or either of the moderation schools ?

4. University Extension.

Do you consider that any practicable modification of the present system would render a University education useful or attainable for young men who are intended to become bankers, merchants, physicians, surgeons, engineers, solicitors, clerks in public offices or elsewhere, booksellers, chemists, &c., &c. ?

At what age, in any of the above professions, do young men begin and end their professional education ? Taking all the various avenues to professional success into account, could an Oxford education, however modified, be made to repay them for the inconvenience of deferring their start in life ? If so, at what age should such an education begin and end, and to what sum should its expenses be reduced ?

In case you consider a University education, however modified, impracticable in the above cases generally, will you state whether you consider any modification of it would attract the higher trades and professions, that could afford time for a longer preliminary education ;—specifying which, and whether these could supply any considerable number of students to the University ?

The resources in the University for educating an increased number of Clergy ?

The best mode of providing accommodation for a larger number of students ?

5. Professional Education.

Could the University give a professional education to young men intended for medicine, law, &c., without wholly dispensing with the present general course of study ? In case this accommodation were thought necessary, by what arrangement could the University make it without the risk of lowering the superior education now given to those who have time and means for it, and thus abandoning the function of keeping up a high educational standard through the country ? The expediency of retaining the present course of study for the Arts degree, of admitting orders of students into the University, who should not study with a view to that degree, but in special or professional lines, and for a degree or other testimonial in such lines ?

If you consider that a professional and a general education can be combined, will you state in what way ? The advantage of the plan proposed by the University Commissioners ? [see Question 1.]

The fact of large established schools of professional instruction in the Metropolis and other places, and its bearing on the prospects of the University as such a school ?

6. The admitted want of a preliminary professional education in the higher department of the Law [see Evidence to Report, p. 198], and the advantages of the University as a means for supplying this ?

7. The best mode of promoting a more systematic study of Theology at the University ?

The comparative advantages of the University and of Diocesan institutions, as places of preparation for Holy Orders ?

8. The use of a professoriate for the purpose of teaching, and also as a means of retaining men of learning in the University ? The studies for which professorial teaching is most adapted ? The studies which, according to the existing state of the University, principally call for it ? The degree in which the combination of the professorial system with the tutorial is advisable, and the plan and arrangements by which it could be effected. The regulations by which Professorships may be guarded from degenerating into sinecures ?

9. Whether a board or delegacy for the supervision of studies is wanted, and how it should be constituted ? The Professorial Board for the supervision of studies and appointment of Examiners proposed by the University Commission ?

10. The best mode of appointing the Professors and Examiners; and the respective merits, for this purpose, of the Crown, Convocation, Chancellor, Vice-Chancellor, Proctors, Faculties, Boards within and without the University, as appearing from past appointments and other considerations ?

COLLEGES.

1. The general considerations which regulate the obligation to observe the intentions of Founders ? The removal of this obligation in the case of some of these intentions, and its continuance in the case of others ?

2. The objects for which Colleges were founded; their

respective weight in the Founders' minds; the scientific object in particular, its largeness and the extent to which it was comprehensive of whatever branches of knowledge had attained importance in the days of the Founders?

3. The eleemosynary designs of the Founders of Colleges, and the shape in which they could be most effectually fulfilled consistently with altered circumstances, and the habits of the present age? Ought the restriction of Fellowships and Scholarships to poor persons to be retained? If retained, how ought they to be modified, and what provisions can be recommended for carrying them out without prejudice to the educational functions of the Colleges? The nature and amount of the property test by which Fellowships should be guarded? The desirableness of new Exhibitions or Scholarships for poor men? Their suitable value, and the length of time they should be held? The regulations by which attention to the claims of poverty could be best secured in those cases in which it might be prescribed?

4. The condition and characteristics of the old class of *pauperes scholares*, their rank in society, numbers, treatment in the Colleges and University, and general history?

5. The religious designs of the Founders of Colleges, in regard to the promotion of the Christian religion, the strengthening of the Church, and education of an efficient Clergy? The purpose for which the condition of Holy Orders was annexed to Fellowships?

6. The local preferences of Founders and Benefactors, and the grounds on which they appear to have been made? Is any difference to be observed in the *animus* of them in different cases?

7. The relation of the Colleges to the University, and whether the former have contracted obligations to the latter in consequence of various privileges, especially the privilege they have enjoyed since 1636, of being the sole channel of admission into the University? And, if so, the nature and extent of those obligations? (See Report, p. 45, 179. Evidence, p. 131, 158, 214).

8. Do you consider Parliamentary interference with the College Foundations right and desirable? And, if so, upon what grounds, and to what extent?

In what mode could the Legislature most safely and constitutionally interfere for improving the efficiency of College Foundations—by direct general legislation, or by enlarged powers of correction to be exercised separately in the several Colleges by Commission from the Crown—together with enlarged powers, under proper checks, to the Colleges themselves to adjust their Statutes to the present wants of society?

9. The desirableness, on the supposition of Parliamentary interference, of the following changes:

Abolition of all oaths imposed by College Statutes, and especially oaths or promises to observe the Statutes, or declarations against change in the same?

Removal of the local restrictions upon Fellowships and Scholarships?

Removal of the obligation of Fellows to Holy Orders?

Enforcement of an examination test as the exclusive ground of election to Fellowships and Scholarships?

Appropriation of College revenues to University purposes, such as the endowment of Professorships, either by annexing them to Fellowships in certain Colleges, or by a tax on Colleges?

The appropriation of some Fellowships to particular branches of knowledge?

The expediency of limiting the tenure of a certain proportion of Fellowships?

The enforcement of the condition of study in the case of permanent Fellowships not held in connection with tutorial or other College employment? The regulations by which this could be effected? The desirableness of the condition of residence in the case of such Fellowships?

10. The Church interests involved in the proposal to apply College revenues to the maintenance of University Professors, and to remove from Fellowships the condition of Holy Orders? In what way could the Church receive a more certain pledge for the Church-membership of such Professors, than that which is afforded by the present connection of the University with the Church?

11. The expediency of some alteration in the present Visitatorial system, with a view to its greater efficiency?

PHYSICAL SCIENCE.

1. At what age do young men generally begin the study of physical science and attendance on the lectures in that department?

2. The principal professions and practical objects with a view to which the study of physical science is pursued?

3. What constitutes the University education of a medical student,—stating the courses of lectures, the order in which they are attended, and the length of time they take up?

4. Will you state fully and particularly the advantages which a University in a metropolis has, compared with a University in a provincial city of average size, with respect to hospitals and the general means of experiment and illustration in physical science, apparatus, specimens, &c.?

5. What proportion of students in physical science attend regularly other courses of lectures in classics, moral philosophy, divinity, &c.?

6. Are you, or not, of opinion that for the effective encouragement of physical science, and in order to attract students in it to the University, it would be necessary to separate it from the University *curriculum*, and allow it to be pursued by itself?

7. Do you consider that the permission to devote the last year of undergraduateship to physical science would draw to the University either professional students or others to whom such knowledge would be useful, for the improvement of landed property or other objects?

Can you suggest any arrangement by which the University would be enabled to educate scientific men?

8. The value of physical science as a branch of liberal education, and for the general purpose of mental training and development?

AMERICAN PARLIAMENTARY PAPERS.

As the distribution of Parliamentary Reports has lately occupied the attention of a Committee of the House of Commons, and as a good deal of interest has been expressed on the subject in all parts of the country, the following account of the distribution of papers printed in the United States, by order of Congress, is extracted from a letter recently received from Mr. Stansbury:

The papers presented to Congress are almost always printed in octavo; or if a larger size is required, on account of plates, or other illustrations, they are printed in quarto; and a complete Index of all which are published is printed at the end of each session.

The number of copies printed depends upon the importance of the document. The smallest number is 1,500; but of those which are considered by Congress to be important, and which it is therefore desirable to make widely known, from 10,000 to 100,000 are printed. These documents are never sold, the whole of them being distributed gratuitously at the cost of the State. Copies are in the first instance sent to all members of Congress, and it is understood that they shall re-distribute them in the states which they severally represent. Copies of all public documents are also deposited in the State Libraries of each State; and it has for some time been the custom to send them to the various Government departments and bureaux; the department through which the report comes usually receives a large number of copies for distribution; and in the case of individual reports, the authors frequently receive a few hundred copies.

It follows from all this, that the State papers, and other printed Government documents, are to be found in almost every public library in the United States, and there are a great many libraries of this kind; but from the large number distributed, and the manner in which it is done, it also necessarily happens that many of the papers are sent to those to whom they are utterly useless, and, consequently, that a considerable portion is eventually sold as waste, and destroyed; whilst, from the fact that they are not to be purchased, it frequently happens that those who really want them, sometimes find it difficult to obtain copies for their own private use.

Formerly the public papers were printed by contract, the work being entrusted to the lowest bidder. This led to very inferior work, and yet produced severe losses to the contractors, which Congress felt bound in equity to make good. Recently a public printer has been elected, and the charge of the whole work is now vested in the Superintendent of Public Printing, who is forbidden by law to have any interest in it. The yearly expense to which the Government is put by the printing of public documents is about 100,000*l.*

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

Institution of Civil Engineers, May 3rd, 1853.—J. Simpson, Esq., Vice-president, in the Chair. The Paper read was "A Description of the Chesil Bank, (Portland)," by Mr. J. Coode, M. Inst. C. E. After describing the position, extent and form of this vast accumulation of shingle, the author stated that it had been generally supposed, that the nucleus of the bank was formed of a mound of clay; repeated trials, by boring, had, however, shown that the bed on which the shingle rested, on the east, was the edge of the Kimmeridge clay of the east bay; and it was only on that side that it could be reached by boring tools. The bank consisted in reality of shingle, mixed in places with sand, and so compact as to prevent the percolation of water, except during heavy gales from the south west, notwithstanding that at certain times the tide rose nearly three feet higher on the west than on the east side of the bank, and in heavy gales the waves ran up the slope as much as ten feet vertically. The largest shingle was generally found "to leeward," or farthest from the point whence the heaviest seas proceeded; and so clearly was this defined, that a Portland fisherman was popularly said to be able to distinguish, in the darkest night, any precise spot of the beach, "by the size of the pebbles." The shingle composing the bank consisted chiefly of chalk flints, with a small admixture of pebbles from other formations. The question was next discussed, as to the power by which shingle was conveyed from a distance of between forty and fifty miles, and deposited in the form of a high mound. The action of tidal currents was carefully examined, and after admitting that they did sometimes modify the extent and form of accumulations of shingle, and referring to the late Mr. H. R. Palmer's paper "On the Motion of Shingle Beaches," additional reasons were given, against the sufficiency of this tidal action to produce such results. Instances were then cited, of shingle travelling in opposition to the prevailing current or tide, and having shown, that the progress of the shingle could not be attributed to the action of the tidal currents, the effect of the wind waves was attentively considered. The prevalence of west and south-west winds on that coast was demonstrated, and it was shown, that lines drawn across the bay, in the direction of the heaviest and prevailing winds, would intersect the points whence the shingle had evidently been derived; it was shown also, that the seas driving along the west side of Portland, sufficed to arrest the progress of the shingle, and the evidence adduced led irresistibly to the conclusion, that the ultimate movement of shingle was always found to be in the direction of, and never against, the drift of the heaviest seas; but frequently in opposition to the prevailing tidal current. The formation of the gullies, or "cans," in the face of the bank, caused by the partial percolation, was then noticed, as tending in some degree to produce the flat slope on the east side. Mr. Palmer's views as to the "accumulative" and the "destructive" action of waves, were then examined, the Author's observations inducing him to fix other limits; the rule, so far as one could be formed, being in his opinion, that seven, or any less number of waves per minute, induced the "destructive' action, and nine, or any greater number, in the same time, the "accumulative" action; it being admitted, that shingle always accumulated with off-shore winds, and was scoured off during on-shore winds, and especially by the subsequent ground swell; bearing in mind, however, in watching the course of the crest of the wave, after breaking, that if it fell upon the water of the preceding wave, then returning down the slope of the beach, (as was the case when waves followed in quick succession,) the "accumulative" action was going on; but if the water descended directly on the pebbles, (as when the waves broke at longer intervals), the "destructive" action was progressing. The rapidity with which the water ran off, or was absorbed, would influence the result, and that was to some extent contingent on the slope of the beach, and also on the nature and degree of compactness of the material of which it was composed. The Paper concluded with some instances of the effects produced on the Chesil Bank, by heavy gales from the south west.

Royal Scottish Society of Arts.—The Society met in their Hall, 51, George-street, on Monday, March 28th, 1853; Professor More, F.R.S.E., in the chair. The following communications were made:—1. Suggestions for the Prevention of Railway Accidents arising from Collision, by Mr. J. Stewart Hepburn. The author stated, that one cause of these accidents was the defective means of rapidly transmitting notice along the line, by signals, of any stoppage that occurred by the breaking down of a train, or otherwise; and he suggested, whether the electric wire might not be made the means of conveying an instantaneous signal of danger along the line between the two nearest stations to where the stoppage occurred. The author suggested that, at each angular bend of the line, elevated "danger" lamps might be permanently fixed up, covered on each side by day with a mask (removable at night), and having the established danger *day* signals; and these again both covered, when the line was clear, by another mask turning vertically on a pivot at the bottom, but secured in its upright position by a catch in connection with an electric wire extending to a battery at the nearest station. Furnished with this apparatus, the clerk or policeman on duty at the station might instantly, on the arrival of intelligence of any stoppage, cause the masks of the danger-signals along the line to drop simultaneously, in the manner in which the time-ball is dropped by the electric wire at the Greenwich Observatory. On the cessation of the obstruction, the masks might be returned to their places by the policeman or platelayers along the line. On a former occasion, the author suggested, in order to prevent accidents by collision, that there ought to be placed at each extremity of the train, a carriage or goods waggon, mounted at each end with a compression frame, containing from thirty to forty elliptic springs; or, at least, the locomotive engine should be fronted with such a powerful compression frame. 2. Some Notices of Attempts to Discover Perpetual Motion, by Daniel Wilson, LL.D., V.P. A curious collection of models, executed by various ingenious pursuers of the mechanical fallacy of perpetual motion, were exhibited, and Dr. Wilson gave some account of R. Aird, an indefatigable enthusiast, the constructor of several of the models. After pointing out the arguments by which the theory of perpetual motion was demonstrable as an impossibility, he remarked that there was one light in which the aim of such attempts might be viewed, which, though curious, he was not aware had yet been noticed. The attempts to endow dead matter with a self-originating and self-sustaining principle of motion was, in other words, an attempt to *create life*. If the theory of a perpetual motion in mechanics was possible, then its execution, or even the demonstration of its possibility, amounted to the most practical establishment of materialism that could be conceived; and the idea of a self-originating universe would no longer be open to dispute. 3. On Means which might be adopted in Public Buildings and Dwelling-houses for the Speedy Extinction of Fire, by James Stark, M.D., F.R.S.E., &c. The plan proposed was to have stopcocks with screw mouth-pieces soldered to the supply-pipe of the upper cistern as it passed through each floor, and a hose of gutta percha tubing, with a coupling screw at one end and a brass nozzle at the other, kept ready to be fitted on when wanted.

PROCEEDINGS OF INSTITUTIONS.

Basingstoke.—The Thirteenth Lecture Session of the Mechanics' Institution was closed on Tuesday fortnight, with a lecture on "The Vestiges of the Assyrian Empire," which was delivered at the Town-hall, by the Hon. and Rev. S. Best, rector of Abbotts Ann, and attracted a large audience, including several of the most distinguished families of the neighbourhood. The lecture was illustrated by a collection of diagrams, showing the costume, customs, barbarous cruelties, &c., which characterised the inhabitants of that great empire. In moving the cordial thanks of the meeting (which was unanimously adopted) to the Rev. S. Best, for his able lecture, the Rev. M. Harrison, V.P., offered some remarks upon the progress, and present prosperous position of the Institution, and recommended it as worthy of the support of the affluent, and of all who were desirous of promoting the comfort and intellectual advancement of youth.

Battersea.—In December last, a Literary and Scientific Institution was established in Battersea, which already numbers 227 members. The total receipts during the past quarter have been 128*l*. 13*s*. 5*d*. The expenditure has been 70*l*. 16*s*. 10*d*., leaving a balance of 57*l*. 16*s*. 7*d*., in the hands of the Treasurer. The number of volumes in the library now amounts to 1,100.

Battle.—On Monday evening a lecture was delivered to the members and friends of the Mechanics' Institution by the President, Horace Martin, Esq., "On the Saxon Conquest of England." The material of this lecture was chiefly taken from a recent French author, many of whose ideas, it was believed, were new and of an interesting character.

Carlisle.—The Annual Meeting of the Mechanics' Institute, was held on the Tuesday in last week, when the foundation-stone of the new Lecture-room was laid by the Mayor, by torch-light. Alex. Davidson, Esq., Vice-President, occupied the Chair. The Institution is in a very prosperous condition; during the last two years an addition of more than 50 per cent. has been made to the number of members, which was only 415 in 1851, and is now 634. This was considered to be due, in a great degree, to the establishment of a reading and news room; the classes had also partaken of the general prosperity. The library now contains 3,557 volumes, and the number of issues during the year amounted to 11,566, being an increase of 2,120 over the preceding year. After the reading of the Report, Dr. Elliot remarked, that he thought Carlisle stood well in comparison with other towns as to the number of its Institutions. "For instance," he said, "Newcastle-upon-Tyne, with a population of about four times that of Carlisle, had only the same number of literary institutions; and Manchester, with all its wealth and enterprise, had only sixty-two literary institutions, whereas it ought to have three times that number to have the same in proportion as Carlisle boasted of. But there was still much to do in Carlisle. Taking the adult population of the city, only one man in three was a member of a literary institution; consequently, they would either have to treble the number of their institutions, or the list of membership would have to be extended to three times its present length."

Halsted. Three lectures on the "Electric Telegraph" were recently delivered at the Mechanics' Literary and Scientific Institution by Mr. E. Wheeler, and were illustrated by diagrams and apparatus. In the first the lecturer gave an historical sketch of the science of telegraphing, the agency and first employment of electricity, and, passing on, adverted to the discoveries of Oersted, Ampére, Arago, Davy, and Faraday. He then came to the practical application of electricity as a mode of communication, and, laying aside all scientific technicalities, explained the system of communication most general in the present day, and showed the way in which the letters of the alphabet were expressed and transmitted from one railway station to another, and the various modes of insulating the wires. In the second lecture he treated at some length on the modes of averting the effects of lightning on telegraphic instruments and wires; on dial telegraphs, and the mode of communicating with intermediate stations; on signal bells and alarums; on the printing telegraph; and on the electro-scriptic or copying machine. In the third lecture the submarine telegraph was described, and Mr. Wheeler explained how it was possible to communicate across the water without wires, the waters of the ocean forming part of the communicating medium.

Hastings.—A lecture was delivered at the Mechanics' Institution, on Monday week, by the Rev. F. J. Sharr, on the "History of Philosophy in Germany." The chair was occupied by Mr. C. J. Womersley.

Hertford.—The Twenty-second Annual Report of the Literary and Scientific Institution states that the library now contains 4,420 volumes, and that the number of members is eighty-four. The Treasurer's accounts show a balance in favour of the Institution of 11*l.* 5*s.* 11*d.*, the year's income being 238*l.* 2*s.* 0½*d.*

Leeds.—The issues from the library of the Mechanics' Institution and Literary Society, from the 1st of January to 31st December, 1852, were:

1654,	A. Theology.
1698,	B. Philosophy; Education.
477,	C. Politics; Statistics.
7413,	D. History; Biography.
4435,	E. Voyages; Travels.
1987,	F. Poetry; Drama.
14090,	G. Fiction.
4268,	H. Fine Arts; Literature.
146,	I. Mathematics.
708,	K. Mechanics.
736,	L. Chemistry.
277,	M. Natural Philosophy.
1055,	N. Natural History; Gardening.
222,	O. Medicine; Dietetics.
4040,	P. Bound Periodicals.
Total, 43206	
10325	Unbound Periodicals.
Total, 1852, 53531	
Total, 1851, 53365	

Lymington.—At the Annual Meeting of the Members of the Literary Institution, N. Adams, Esq., occupied the chair. From the report of the Committee, read by Mr. Sharp, the Secretary, it appears that there are 168 subscribers to the Society; that the library consists of 680 books, 117 having been added during the past year, 29 of which were presented, and 88 purchased. The receipts on behalf of the Society during the past year were 122*l.* 11*s.* 9*d.*, and the disbursements 113*l.* 14*s.* 11*d.*; leaving a disposable balance of 8*l.* 16*s.* 10*d.* The report stated that the financial position of the Institution was, in the opinion of the Committee, most satisfactory; as, among other things, they had been enabled to reduce the debt on the building. It then referred to an endeavour which is now being made to pay off this debt of 235*l.*, and touched upon the formation of the Discussion and Elocution Classes, and the efficient manner in which they had been conducted, and the hopes of the Committee that other classes would shortly be established. The report closed by a reference to the connection of the Institution with the Society of Arts, in London; and stated some of the advantages which might be expected to result from the union, though some time must necessarily be required to develope fully those advantages, and that an allowance must be made for the difficulties to be encountered in the outset, especially with respect to the plan of Lectures. The following officers were elected for the year ensuing:—President, Edward Hicks, Esq.; Vice-presidents, N. Adams, Esq., E. Chinery, Esq., Capt. Welch, and A. W. Beetham, Esq.; Treasurer, Mr. Chubb; Secretary, Mr. Sharp; Committee, the Rev. J. Martin, Messrs. Guy, Wright, Allen, Gibbs, T. Smith, and the Revs. D. Lloyd and J. Millard.

Reading.—The Twelfth Annual Meeting of the members of the Literary, Scientific, and Mechanics' Institution was held on Tuesday week;—the chair was occupied by Dr. Cowan. Mr. James Boorne, the Honorary Secretary, read the Report of the Directors, which stated that the reading-rooms, as in former years, had been well attended. The library had been much increased by the kindness of several friends, and by the union with the Society of Arts. There were twenty-two lectures, twelve of which were delivered gratuitously; and the attendance, both of members and non-members had exceeded the average of former years. The Treasurer's report was next read, from which it appeared that the Institution was entirely free from debt, and there was a balance in its favour of 25*l.* 3*s.* 10*d.*

St. Michael's, Pimlico.—On Monday evening, 2nd May, a lecture was delivered at the Literary, Scientific, and Mechanics' Institution by William Rushton, Esq., M.A., "On Plain English." The lecturer traced the history of the English language, and proved its Saxon origin by illustrations drawn from the provincial dialects, particularly those of the west and north of England. He then maintained that there was a mine of wealth in the Saxon part of the language, which might be profitably worked, especially in its application to elementary works of science. Science would never be popular in England, while the present system prevailed; the Germans taught the sciences in plain words, and what had been done in German might be done in English.

Wednesbury.—The Fifteenth Anniversary of the Mechanics' Institution, Library, and Reading-room, was recently held in the rooms of the Institution, for the purpose of receiving the report of the retiring Council, and the Treasurer's statement of accounts, and also of electing the officers for the ensuing year. The circulation of works from the Library during the past year amounted to 3,288, against 2,356 in the previous year. The number of annual subscribers was 24, and of quarterly subscribers 90,—being an increase of 21. From the Treasurer's statement of accounts, it appears that the Institution has now a small balance, whereas at the same period last year it was in debt 30*l.* 5*s.* 6*d.* At the election Mr. Samuel Lloyd was appointed Treasurer, and Messrs. Sampson Lloyd, and Samuel Lloyd, Jun., Secretaries.

TO CORRESPONDENTS.

Notice.—Members, and others, who can furnish or obtain original information or suggestions on the subjects included in the Society's Premium-list, or other topics connected with the Society's various departments of operation, are invited to communicate the same to the Secretary, in as condensed a form as possible, for the purpose of being either read and discussed at the evening meetings, or inserted in the Society's weekly Journal. Anonymous letters cannot be attended to. All communications, whether the author's name is to appear or not, must be accompanied by the writer's name and address.

Members of the Society who do not receive the Journal regularly, are requested to give immediate notice to the Secretary; and, in order to prevent mistakes, they are particularly requested to signify any change which they desire to have made in their address, with as little delay as possible.

Country Institutions.—Correspondents who are so good as to send reports of proceedings of Local Institutions, are requested to forward them immediately after the Meeting to which they refer, and not later than Tuesday morning, if intended for insertion in the following Friday's Journal.

"*Rules and Bye-laws.*"—The Honorary Secretary of the Tunbridge Wells Useful Knowledge Institution will feel obliged by receiving copies of the rules and bye-laws of any of the Institutions in union.

MISCELLANEA.

Industrial Instruction.—In the House of Commons, on Monday last, a copy was ordered, on the motion of Mr. W. Brown, M.P. for Liverpool, "of the Report on Industrial Instruction, and the evidence on which that Report is founded, presented by the Council of the Society of Arts to the Board of Trade."

Canadian Board of Agriculture.—A Board of Agriculture for Lower Canada was formed on the 28th of March; the first meeting being attended by the Governor-General, and Mr. Cameron, the Minister of Agriculture. The formation of thirty-six local County and Township Agricultural Societies was approved, and it was determined to hold an Agricultural Exhibition in or near the city of Montreal in the last week of next September.

Duties on Books and Engravings.—According to the amended scale of Customs' duties in the new Budget, the following charges are made:—Books, being of editions printed prior to 1801, bound or unbound, per cwt., 1*l.* 1*s.* Books, being of editions printed in or since 1801, per cwt., 1*l.* 10*s.* Books in foreign living languages, printed in or since 1801, bound or unbound, per cwt., 1*l.* 10*s.* Admitted under treaties of international copyright—viz., Works originally produced in the United Kingdom, and republished in the country of export, 15*s.* per cwt. Works not originally produced in the United Kingdom, 15*s.* per cwt. Prints and drawings, plain or coloured, separate, per lb., 3*d.* Prints and drawings, plain or coloured, bound or sewn, per lb., 3*d.* Admitted under treaties of international copyright, separate or bound, per lb., 1½*d.*—*Literary Gazette.*

Museum of Inventions.—The movement in favour of the establishment of a Museum of Inventions that has been commenced in many of the chief seats of manufacturing industry in this country is constantly extending itself, further memorials on the subject having just been addressed to the Government and the Royal Commissioners by Glasgow and Sheffield, signed in both cases by all the leading inhabitants of those towns. The Sheffield memorial was presented to his Royal Highness Prince Albert, the President of the Commission, on Thursday last, by the Mayor; and that from Glasgow, on Saturday, by the Lord Provost and a deputation. They express the opinion of the memorialists that such an institution has long been needed, and that it will command the zealous support of all who take an interest in the industrial development of this country. It is understood that the Commissioners of Patents, with whom the Board of Trade has entered into communication on the subject, are fully alive to its importance, and that Professor Woodcroft is, under their directions, making every exertion, and with great success, towards collecting such models of inventions and works having reference to them as may form a nucleus for the contemplated National Museum and Library of Inventions at Kensington. Temporary accommodation will be provided by the Patent Commissioners and by the Royal Commission until the question of the erection of an appropriate building for the due display of the collection is decided.

PARLIAMENTARY REPORTS.

SESSIONAL PRINTED PAPERS.

Par. No. *Delivered on 28th April,* 1853.

227 (1). Tavistock Election—Index to Minutes of Evidence.
243 (1). Norwich Election Petitions Withdrawal—Ditto.
321. Athlone Election—Report from Committee.
353. Cirencester Election—Ditto.
403. Dockyard Regulations—Copy of Circular Order.
406. Consolidated Annuities (Ireland)—Return.
405. Bills—Aggravated Assaults (as amended in Committee, and on consideration of Bill as amended).
402. ,, —Copyholds (amended).
National Vaccine Establishment—Report.

Delivered on 29th April.

336. Leicester Election—Report from Committee.
352. Huddersfield Election—Ditto.
378. Burdens on Land (1846)—Appendix, Nos. 9, 10, 11, and 12, to Lords' Minutes of Evidence.

Delivered on 30th April and 2nd May.

191. Local Acts—Reports of the Admiralty.
354. Southampton Election—Report from the Committee.
357. Cockermouth Election—Ditto.
368. Ramsgate Harbour—Account.
376. Barnstaple Election—Report from the Committee.
386. Capital Convictions—Return.
400. Schools (Ireland)—Return.
409. Education—Copy of Minutes.
419. Committee of Selection—Eighth Report.
356. New Ross Election—Report from the Committee.
372. Mayo Election—Ditto.
382. Barnstaple Election—Minutes of Evidence.
387. Poor Relief (Ireland)—Summaries of Returns.
404. Bills—Whittlebury Forest.
411. ,, —Sales, &c., of Lands (Ireland).
417. ,, —Municipal Corporations Act Amendment.
418. ,, —Sales of Bullion.
423. ,, —Leasing Powers (Ireland), as amended by the Select Committee.

Delivered on 3rd May.

355. Taunton Election—Report from Committee.
366. Grand Jury Presentments (Ireland)—Abstract of Accounts.
410. Ceylon—Copy of Sir John Pakington's Despatch.
413. Terminable Annuities—Return.
424. Railway Accidents—Ditto.
425. Tynemouth Election—Report from Committee.
Turnpike Trusts—Reports of the Secretary of State.
Prisons—18th Report of the Inspectors, Part IV. (Scotland).

Delivered on 4th May.

191. Local Acts—Reports of the Admiralty.
268. Silver Coins, &c.—Copy of Correspondence.
379. Customs—Copy of Treasury Minutes, &c.
427. Committee of Selection—Ninth Report.
430. Trade and Navigation—Accounts.
Education, Minutes of the Committee of Council, Vols. I. and II.

PATENT LAW AMENDMENT ACT, 1852.

APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.

From Gazette, 29th April, 1853.

Dated 24th Feb.

468. C. Flude—Production of spirit and in stills.

Dated 1st April.

778. J. Smedley—Machinery for scutching.

Dated 5th April.

811. E. S. Stanley—Manufacture of soda from common salt. (A communication.)

Dated 13th April.

885. A. E. D. K. Archer—Apparatus for applying metallic capsules.
887. G. Elliott and W. Russell—Manufacture of alkali.
889. T. Edwards, steam-engines.
891. D. Hebson—Air-pumps of steam-engines.
893. W. R. Bowditch—Purifying water.
895. C. Clifford—Lowering ship's boats.

Dated 14th April.

896. J. Hinks and G. Wells—Improvements in certain boxes.
897. T. L. Preston—Cutting and piercing metals.
899. C. J. Duméry—Paste and enamel buttons.
900. C. Lowe—Corn-mills.
901. J. Chadwick—Raw and thrown silk.
902. J. Bethell—Flax.
903. W. Laycock—Metallic and other casks and vessels.
904. J. Adamson—Flushing apparatus and water-closets.
907. A. Guy—Filter.
908. C. Green and J. Newman—Wheels.
909. R. Wyburn—Easy chairs.
910. W. Ogden—Carding-engines.
911. W. J. T. Jones—Steam-engine governors.
912. D. Zenner—Treatment of ores, &c., and apparatus for same.
913. A. Crichton—Bilge pumps, injection cocks, and sailing vessels.
914. F. M. A. Serruys—Tanning. (A communication.)
915. J. B. Maniquet—Machinery for winding, cleaning, &c. silk, cotton, &c.
916. G. Titterton—Brushes.

Dated 15th April.

917. W. Wilkinson—Ropes, cords, &c.
918. W. Allen and W. Murrell—Cleansing bottles.
919. J. Lewthwaite—Rollers for blinds, maps, &c.
920. W. E. Newton—Treatment of refuse silk waste. (A communication.)

Dated 16th April.

921. P. Davis—Constructing breasting to drums of threshing-machines.
922. S. Bayliss—Consumption, smoke, and heating liquids.
924. J. M. Souchon—Manufacture of gas for illumination and apparatus.
925. J. Cooke and W. Cooke—Machinery for cutting corks.
926. J. A. Cator—Machinery for preparing flax, &c., for scutching, &c.
927. J. Simpson—Machinery for covering wire, silk, &c., with wire, &c.
928. H. Wilks—Cocks.

Dated 18th April.

930. J. Begbie—Wheeled carriages.

932. J. Watts—Pistons of steam and other engines.
936. J. S. Scarlett and W. S. Passmore—Mineral wicks to lamps.

Dated 19th April.

938. F. G. Sicardo—Rotary steam-engine.
942. J. Chatterton—Coating tubes.
944. J. Fuller—Galvanic batteries.
946. T. Day—Boots and shoes.
948. E. Vivian—Thermometers.

Dated 20th April.

950. J. Smethurst—Packing yarn, &c.
952. E. Chappuis, fils—Myriastratic reflector.
954. T. C. Foster—Reaping machine.
956. R. A. Brooman—Machinery for reaping and gathering.

Dated 21st April.

958. A. Deale—Ocean floats for saving lives and light treasures from shipwreck.
960. C. Reeves—Improvements in swords.
962. H. Carr—Construction of railways.
964. P. Harris—Fire-arms.
966—W. H. Johnson—Sewing cloth, leather, &c.

APPLICATIONS WITH COMPLETE SPECIFICATIONS FILED.

961. Juan Duran—Obtaining and applying motive-power. 21st April, 1853.
999. A. Slate—Improved filter for water and other liquids. 26th April, 1853.

WEEKLY LIST OF PATENTS SEALED.

Sealed 28th April, 1853.

553. George Hattersley, of Sheffield—Invention of a radiating hearth plate.

Sealed 30th April.

577. John Crowther, of Huddersfield, and William Teale, of Wakefield—Improvements in obtaining motive power.
578. Edmund Adolphus Kirby, of Haverstock-hill—Invention of an improved adjusting couch for medical, surgical, and general purposes.
598. Henry Brock Billows, of Curtain-road—Improvements in the construction of gas-burners for illuminating and heating purposes.
608. Jerome André Drieu, of Manchester—Improvements in machinery for weaving and for dividing double cloth to make pile fabrics.
609. John Nicholas Marion, of Paris, and 4, South-street, Finsbury—Invention of a new mode of rendering concrete coleseed oil.
628. Alfred Sidebottom, of Downham-road, Islington—Improvements in machinery or apparatus for cutting books, paper, and other substances.
754. William Fraser Rae, of Edinburgh—Improvements in gas-heating and cooking apparatus.
814. Robert Heggie, of Kirkaldy, Fifeshire—Improvements in railway-breaks.
830. James Armitage, of Bury, and Charles Thaxter, of Fenton, Huntingdon—Improvements in dies for moulding plastic materials.
1106. John Clay, of Cottingham, East Riding, Yorkshire—Improvements in the manufacture of coal gas.
1113. Charles Pilkington, Thomas Pilkington, and Abraham Pedigar, of Sheffield, York—Invention of an improved joiner's brace.
48. George Stewart, of Enniskillen—Improvements in railways and in the propulsion of engines, carriages, and other vehicles thereon.
436. Pierre Auguste Tourniere, of 14, Kennington-terrace, Upper Kennington-lane—Improvements in propelling.
438. Samuel Rodgers Samuels and Robert Sands, of Nottingham—Improvements in looms for weaving.
451. Pierre Frederick Gougy, of Castle-street, and David Combe, of King-street—Improvements in apparatus for skidding or stopping wheels of carriages and other vehicles.
628. Thomas Hunt, of Leman-street, Goodman's-fields—Improvements in the construction of sights for firearms.

Sealed 4th May.

637. William Pope, of Holford-square, Pentonville—Improvements in the ventilation of ships.
639. Joseph Reynaud, of Paris—Invention of certain improved means of imitating marbles and various coloured woods.
641. Collison Hall, of Essex—Invention of an apparatus to be used in the carriage of solid and liquid bodies.
651. Hesketh Hughes and William Thomas Denham, of Cottage-place, City-road—Invention of certain machinery for the manufacture of fancy ribbons, ornamental trimmings, chenilles, fringes, and gimps.
652. James Hadden Young, of 66, College-street, Camden-town—Improvements in weaving.
709. George Lucas, of 42, Kennedy-street, Manchester—Invention of composition for filling engraved, cast, or sunk letters, devices, or ornaments, on or in brass, zinc, or other metallic plates.
725. Julien Francois Belleville, of Paris—Improvements in generating steam for producing motive-power or heat.
744. Gray Denison Edmeston, of Salford, and Thomas Edmeston, of Crow Oaks, Pilkington, Lancashire—Improvements in steam-engines, which improvements are also applicable to the regulating of water wheels or similar machinery.
765. Joseph Johnson, of Wellington Quay, Dublin—Invention of an improved mode of producing ornamental articles, such as brooches, bracelets, dressing and other cases, work or other boxes, or other articles, from a certain kind of wood.
795. Henry Bessemer, of Baxter-house, Old St. Pancras-road—Improvements in apparatus for concentrating cane juices, and other saccharine solutions, and in the treatment of such fluids.
796. Henry Bessemer, of Baxter-house, Old St. Pancras-road—Improvements in the crystallization and manufacture of sugar.
797. Henry Bessemer, of Baxter-house, Old St. Pancras-road—Improvements in the treatment of washed or cleansed sugar.
799. Henry Bessemer, of Baxter-house, Old St. Pancras-road—Improvements in apparatus for concentrating saccharine fluids.
1105. Charles Constant Boutigny, of Evreux, France—Improvements in distillation, and in the apparatus employed therein.
29. William Bendwell, of 4, Great Queen-street, Westminster—Improvements in treating sewage waters and matters.
341. Henry Pooley, of Liverpool—Improvements in weighing machines. (Partly a communication.)
359. Robert Ash, of 211, High-street, Southwark—Improvements in stopping bottles and other vessels.
363. William Potts, of Birmingham—Improvements in sepulchral and other commemorative monuments.
437. Wright Jones, of Pendleton, Lancashire—Improvements applicable to steam-pipes used for warming, drying, or ventilating.
483. Frederick Goodell, of Half-moon-street, Piccadilly—Invention of an improved apparatus for the distillation of rosin oil, and for an improved method of bleaching and deodorising the same during the process of manufacture. (Partly a communication.)
491. Lord Berriedale, of 17, Hill-street—Improvements in weaving.
525. Robert Waddell, of Liverpool—Improvements in steam-engines.
555. John Gedge, of 4, Wellington-street, Strand—Improvements in the construction of fire-arms, and in the means of loading the same. (A communication.)
562. Richard Barter, of St. Ann's-hill, Blarney, Cork—Improvements in cutting roots and other vegetable substances.
592. James Kimberley, of Birmingham—Invention of a new or improved gas-stove.
593. James Hogg, jun., of Nicholson-street, Edinburgh—Improvements in making machinery or apparatus for cutting paper and other substances.
597. Joseph Shuttleworth, of Stamp-end Iron-works, Lincoln—Improvements in appendages to portable machines for threshing, shaking, and winnowing corn.
601. George Collier, of Halifax, Yorkshire—Improvements in the manufacture of carpets and other fabrics.
605. George Collier and Samuel Thornton, of Halifax, Yorkshire—Improvements in spinning, roving, doubling, and twisting cotton, worsted, flax, and other fibrous materials.
607. James Walmsley, of Scout Newchurch, near Manchester—Invention of improved machinery and arrangements for block printing.
611. George Collier, of Halifax, Yorkshire—Improvements in machinery or apparatus used in weaving.
619. Moses Poole, of Avenue-road, Regent's-park—Improvements in apparatus for serving oysters and other shell-fish. (A communication.)
627. George Michiels, of Holywell-street, Westminster—Improvements in obtaining oxygen for manufacturing purposes.

WEEKLY LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Date of Registration.	No. in the Register.	Title.	Proprietor's Name.	Address.
April 29	3455	Improved Self-acting Fastener for Casements, Doors, &c.	W. Wilkes Woodhill	Eagle Brass Foundry, Birmingham.
,, 30	3456	Metallic Pen	Isaac Smith	Birmingham.